

AIR FORCE PROGRAMS

Joint Primary Aircraft Training System (JPATS)

The Joint Primary Aircraft Training System (JPATS) is a system of primary flight training devices tailored to meet Air Force and Navy aircrew requirements. The principal JPATS mission is to train entry-level Air Force, Navy, and Marine Corps student pilots in primary flying skills to a level of proficiency at which they can transition into advanced training. Such training leads to qualification as military pilots, navigators, and naval flight officers. JPATS is designed to replace the Air Force T-37B and Navy T-34C aircraft and their associated ground-based training systems.

The JPATS consists of the T-6A Texan II air vehicles, simulators and associated ground-based training devices, a training integration management system (TIMS), instructional courseware, and contractor logistics support. The Services will acquire common aircraft and the remaining components will be as common as possible. Logistics support is tailored to each Service's maintenance concept.

Initial student training began in October 2001 at Moody Air Force Base, Georgia. Currently, aircraft are being delivered to Laughlin Air Force Base in Del Rio, Texas, the second entry-level student training base, and to the Naval Air Station in Pensacola, Florida, where naval flight officers training began September 2003.

TEST & EVALUATION ACTIVITY

A multi-Service system-level, end-to-end test with a class of entry-level students began in June 2002 at Moody Air Force Base, Georgia, and concluded in January 2003. The composition of the class was twelve Air Force and five Navy students who were observed throughout the entire course. This was the first time the aircraft and the ground-based components were evaluated as a complete system.

In addition to student training, resolutions for some of the previously identified deficiencies were addressed. The two major safety related deficiencies from the T-6 OT&E were corrected. First, the environmental control system has been redesigned. Retrofits on delivered aircraft and installation on production aircraft are in progress. A second deficiency was the ultra-high frequency radio being intermittent in certain aircraft attitudes. An additional antenna is being installed on all aircraft to fix this discrepancy.

Follow-on operational test and evaluation (FOT&E) began in October 2003, and will continue for approximately two years. DOT&E approved the test plan for FOT&E in September 2003. Four major areas that will be assessed during FOT&E are a Navy-specific T-6A evaluation at Naval Air Station Pensacola, Florida; an Air Force TIMS evaluation at Laughlin Air Force Base, Texas; a T-6A suitability evaluation at Laughlin Air Force Base, Texas; and a Navy TIMS evaluation at Naval Air Station Corpus Christi, Texas.

The suitability evaluation at Laughlin Air Force Base includes a reliability and maintainability demonstration involving 25 aircraft and roughly 2,000 flight hours that will be conducted in FY04 to assess operational suitability and determine whether the aircraft is meeting contractual requirements.

TEST & EVALUATION ASSESSMENT

DOT&E's beyond low-rate initial production report to Congress, dated November 2001, concluded that the T-6A aircraft was operationally effective (with numerous limitations, deficiencies, and workarounds) and



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not operationally suitable. Deficiency and safety related areas included the engine, environmental control system, ultra-high frequency and very-high frequency radio performance, flight manuals and checklists, the emergency oxygen system, ground egress, the trim systems, power control lever, wheel brakes, cockpit storage, and rear view mirrors. Improvements have been noted in the past year. Still unresolved are the inter-cockpit communications system, the emergency oxygen system, the slow rate of pitch trim (the trim system is currently in redesign), and braking performance. Suitability will be re-evaluated during FOT&E.

The T-6A ground-based training system consists of three major components: simulators and other aircrew training devices, the computer-based courseware, and the TIMS. The aircrew training devices and the computer-based courseware are working well with minor deficiencies. However, TIMS was not operationally effective or suitable during the end-to-end evaluation. Numerous workarounds and real-time changes were required to keep the system running. Functions that worked included academics, student status, schedule viewer, and the gradebook. Functions that required workarounds include the schedule build (flight-level only), training forecast schedule, maintenance, and the flight surgeon inputs. Many deficiency corrections have been incorporated since the last evaluation and the TIMS will be re-evaluated during FOT&E.